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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/812,175

03/29/2004

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EXAMINER

STOFFREGEN, JOEL

ART UNIT

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2626

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/812,175

Applicant(s)

KANNAPPAN, KENNETH

Examiner

Joel Stoffregen

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the original application filed on 03/29/2004.
2. Claims 1-26 are currently pending in this application. Claims 1, 12, and 20 are independent claims.

Claim Objections

3. **Claims 1, 7, 9-12, 17-20, and 24-26** are objected to for using the language "configured to". For example, claim 1, line 3, "engine configured to receive" should be stated more appropriately, such as --engine that receives-- to more appropriately reflect a statutory claimed invention. Phrases including: 'can', 'might', 'are configured', 'are assignable', and 'is connectable' among others, merely recite the ability of cases to occur, but do not explicitly require them to do so. They fail to claim a positive recitation of the interconnectivity of all elements of a system. The above is merely an example and does not necessarily represent every instance of objectionable matter within the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 2, 4-13, and 15-26** are rejected under 35 U.S.C. 102(b) as being anticipated by Fujisaki, Patent No.: US 4,853,953 ("FUJISAKI").

6. Regarding **claim 1**, FUJISAKI teaches a headset system, comprising:

a headset having a headset microphone ("a handset 1 having a receiver 11 and a microphone 12", column 2, lines 20-21);

a speech recognition engine ("speech recognizer 2", column 2, lines 21-22) configured to receive audio signals from the headset microphone and to interpret the audio signals received via the headset microphone ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33) when activated ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53), the speech recognition engine being further configured to interpret audio signals representing at least one of digits, letters, and numbers ("dialing number 'one' is spoken into the microphone 12", column 3, lines 33-34); and

an in-band dual tone multi-frequency tone generator ("dialing circuit 7 of either impulse of multifrequency type", column 2, lines 23-24) in communication with the speech recognition engine and configured to generate in-band DTMF tones representing the interpreted at least one of digits, letters, and numbers ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

7. Regarding **claim 2**, FUJISAKI further teaches a DTMF activation button ("manually controlled switch 22", column 2, line 51) in communication with the speech recognition engine for activating the speech recognition engine ("which is in the up position when a call is placed to couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 51-53).

8. Regarding **claim 4**, FUJISAKI further teaches a headset base unit ("handset 1", column 2, line 20) containing the in-band DTMF tone generator ("dialing circuit 7", see FIG. 1, column 2, line 23) and the speech recognition engine ("speech recognizer 2", see FIG. 1, column 2, lines 21-22).

9. Regarding **claim 5**, FUJISAKI further teaches that the headset ("handset 1", column 2, line 20) further includes the in-band DTMF tone generator ("dialing circuit 7", see FIG. 1, column 2, line 23) and the speech recognition engine ("speech recognizer 2", see FIG. 1, column 2, lines 21-22).

10. Regarding **claim 6**, FUJISAKI further teaches a voice synthesizer in communication with the speech recognition engine ("output of decision circuit 26 is further applied to a speech synthesizer 5", column 3, line 46).

11. Regarding **claim 7**, FUJISAKI further teaches a headset speaker ("receiver 11", column 2, line 21) in communication with the voice synthesizer, the speech recognition engine is further configured to confirm accuracy of the interpreted audio signals via the speech recognition engine and the headset speaker ("outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled through a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2", column 3, lines 48-52).

12. Regarding **claim 8**, FUJISAKI further teaches that the in-band DTMF tone generator generates in-band DTMF tones with a direct correspondence to the interpreted audio signals ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

13. Regarding **claim 9**, FUJISAKI further teaches that the speech recognition engine is configured to process audio signals for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

14. Regarding **claim 10**, FUJISAKI further teaches that the speech recognition engine is configured to process audio signals for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an

in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

15. Regarding **claim 11**, FUJISAKI further teaches that the speech recognition engine is further configured to interpret a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39).

16. Regarding **claim 12**, FUJISAKI teaches a method for navigating through a dual tone multi-frequency controlled system, comprising:

activating ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53) a speech recognition engine ("speech recognizer 2", column 2, lines 21-22);

interpreting speech received via a microphone from a user by the speech recognition engine ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33), the speech recognition engine being configured to interpret the speech representing at least one of digits, letters, and numbers ("dialing number 'one' is spoken into the microphone 12", column 3, lines 33-34); and

generating and transmitting in-band DTMF tones representing the interpreted speech ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697

Hz and 1209 Hz are mixed together”, column 3, lines 33-35) by an in-band DTMF tone generator (“dialing circuit 7 of either impulse or multifrequency type”, column 2, lines 23-24) in communication with the speech recognition engine (see FIG. 1).

17. Regarding **claim 13**, FUJISAKI further teaches that activating the speech recognition engine is via a DTMF activation button (“manually controlled switch 22”, column 2, line 51) in communication with the speech recognition engine (“which is in the up position when a call is placed to couple the output of the analyzer 21 to a pattern matching circuit 23”, column 2, lines 51-53).

18. Regarding **claim 15**, FUJISAKI further teaches, prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition engine by generating the interpreted speech via a voice synthesizer (“outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled through a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2”, column 3, lines 48-52).

19. Regarding **claim 16**, FUJISAKI further teaches that the in-band DTMF tone is direct translation of the interpreted speech (“if a dialing number ‘one’ is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together”, column 3, lines 33-35).

20. Regarding **claim 17**, FUJISAKI further teaches that the speech recognition engine is configured to process speech for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

21. Regarding **claim 18**, FUJISAKI further teaches that the speech recognition engine is configured to process speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

22. Regarding **claim 19**, FUJISAKI further teaches that speech recognition engine is further configured to interpret a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39).

23. Regarding **claim 20**, FUJISAKI teaches a method, comprising:
connecting to a DTMF-controlled system ("dialing circuit 7 of either impulse of multifrequency type", column 2, lines 23-24), in which navigation through the DTMF-controlled system is via transmission of DTMF tones thereto ("generate control signals for offhook and other control functions and dialing signals", column 2, lines 29-30);

interpreting speech by a speech recognition engine configured to receive speech from a user ("speech recognizer 2 comprises a speech analyzer 21 which analyzes characteristic parameters of input utterances supplied from the microphone", column 2, lines 30-33); and

generating and transmitting in-band DTMF tone to the DTMF-controlled system, the in-band DTMF tones being a translation of the interpreted speech selected from at least one of digits, letters, and numbers ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

24. Regarding **claim 21**, FUJISAKI further, after the connecting, activating the speech recognition engine ("couple the output of the analyzer 21 to a pattern matching circuit 23", column 2, lines 52-53).

25. Regarding **claim 22**, FUJISAKI further teaches prior to the generating and transmitting, confirming accuracy of the speech interpreted by the speech recognition engine by generating the interpreted speech via a voice synthesizer ("outputs of the tone generator 4 and speech synthesizer 5 are selectively coupled though a switch 6 to receiver 11 to allow the user to confirm that his or her utterances are correctly interpreted by the speech recognizer 2", column 3, lines 48-52).

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26. Regarding **claim 23**, FUJISAKI further teaches that the in-band DTMF tone is a direct translation of the interpreted speech ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

27. Regarding **claim 24**, FUJISAKI further teaches that the speech recognition engine is configured to process speech for a plurality of the at least one of digits, letters, and numbers and the in-band DTMF tone generator is configured to generate a plurality of in-band DTMF tones in response thereto (see column 3, lines 33-37, more than one number is entered and converted to a DTMF tone).

28. Regarding **claim 25**, FUJISAKI further teaches that the speech recognition engine is configured to process speech for the at least one of a digit, letter, and number individually, and the in-band DTMF tone generator is configured to generate an in-band DTMF tone in response thereto ("if a dialing number 'one' is spoken into the microphone 12, tone signals at 697 Hz and 1209 Hz are mixed together", column 3, lines 33-35).

29. Regarding **claim 26**, FUJISAKI further teaches that the speech recognition engine is further configured to interpret a predefined set of commands and/or user responses ("command signals such as 'send-to-line', 'clear' and 'verify'", column 3, lines 37-39).

Claim Rejections - 35 USC § 103

30. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

31. **Claims 3 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujisaki, Patent No.: US 4,853,953 ("FUJISAKI"), in view of Borcharding, Patent No.: US 5,165,095 ("BORCHERDING").

32. Regarding **claim 3**, FUJISAKI teaches all the claimed limitations of claim 1.

However, FUJISAKI does not disclose that the speech recognition engine is activated by a voice command.

In the same field of voice controlled dialing, BORCHERDING teaches a speech recognition engine that is activated by a voice command ("caller speaks a directive consisting of a dial command", BORCHERDING, column 2, lines 52-53).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dial command of BORCHERDING to activate the speech recognizer of FUJISAKI so that the "user need not use his or her hands" (BORCHERDING, column 1, lines 46-47).

33. Regarding **claim 14**, FUJISAKI teaches all the claimed limitations of claim 12.

However, FUJISAKI does not disclose that activating the speech recognition engine is via voice command from the user.

In the same field of voice controlled dialing, BORCHERDING activating a speech recognition engine via voice command from the user ("caller speaks a directive consisting of a dial command", BORCHERDING, column 2, lines 52-53).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the dial command of BORCHERDING to activate the speech recognizer of FUJISAKI so that the "user need not use his or her hands" (BORCHERDING, column 1, lines 46-47).

Conclusion

34. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. A list of the pertinent prior art can be found on the included form PTO-892 Notice of References Cited.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joel Stoffregen whose telephone number is (571) 270-1454. The examiner can normally be reached on Monday - Friday, 9:00 a.m. - 6:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS



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